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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/538,015 | 03/29/2000 | Simoni Ben-Michael | 42390.P7283 | 6254 |

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EXAMINER

SAM, PHIRIN

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 07/10/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------|--------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/538,015 | BEN-MICHAEL ET AL. |
| Examiner | Art Unit | |
| Phirin Sam | 2661 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 29 March 2000.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-9,11-13 and 15-20 is/are rejected.

7) Claim(s) 10 and 14 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) Interview Summary (PTO-413) Paper No(s) _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-6, 15-17, and 18-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Kalkunte et al. (U.S. Patent 5,854,900).

Kalkunte et al. discloses the invention (**claims 1-6, 15, and 18**) as claimed including a method for a PHY to resolve link frame collisions, the method comprising:

- (a) attempting to transmit a link frame if the PHY has not transmitted a frame in the last x seconds, where x is a positive real number (see Figs. 2-4, col. 3, lines 15-24).
- (b) if a frame collision is detected during step (a), attempting to transmit a link frame at a time interval after the last frame transmission attempt of the PHY has ended (see Figs. 2-4, elements 20, 22, and 26, col. 3, lines 39-50, col. 5, lines 10-17, 43-64).

Regarding claims 16, 17, 19, and 20, Kalkunte et al. discloses the PHY further comprising:

(a) a counter, wherein the counter is changed by an increment if the collision detector detects a second collision when the PHY attempts to transmit the second link frame (see Fig. 4, col. 7, line 53, and col. 8, line 1).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 7-9 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holloway et al. (U.S. Patent 6,256,317) in view of Kalkunte et al. (U.S. Patent 5,854,900).

Regarding claims 7-9 and 11-13, Holloway et al. discloses a PHY comprising:

- (a) a transceiver to transmit and receive frames on a network (see Fig. 1, element 103, col. 4, lines 37-38).
- (b) a finite state machine (see Fig. 3, col. 6, lines 54-65).
- (c) while the finite state machine is in a first state, the PHY monitors frame transmissions by the transceiver (see Fig. 3, col. 6, lines 2-4).

Holloway et al. does not disclose while the finite state machine is in a second state, the PHY attempts link frame transmissions such that each link frame transmission is attempted at a time interval after the last frame transmission attempt has ended.

However, Kalkunte et al. discloses while the finite state machine is in a second state, the PHY attempts link frame transmissions such that each link frame transmission is attempted at a time interval after the last frame transmission attempt has ended (see Figs. 2-4, col. 3, lines 31-50, col. 5, lines 10-16, and col. 6, lines 30-45). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the PHY attempts link frame transmissions such that each link frame transmission is attempted at a time interval after the last frame transmission attempt has ended teaching by Kalkunte et al. with Holloway et al. The motivation for doing so would have been to provide to increase the throughput of the Ethernet network under heavy traffic loads. Therefore, it would have been obvious to combine Kalkunte et al. and Holloway et al. to obtain the invention as specified in the claims 7-9 and 11-13.

Allowable Subject Matter

6. Claims 10 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(1) Frazier et al. (U.S. Patent 6,029,202) discloses full duplex flow control for Ethernet networks.

(2) Yang et al. (U.S. Patent 5,650,997) discloses method and apparatus for use in a network of the Ethernet type, to improve fairness by controlling collision backoff times in the event of channel capture.

(3) Sherer et al. (U.S. Patent 5,568,469) discloses method and apparatus for controlling latency and jitter in a LAN which uses a CSMA/CD protocol.

8. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to the examiner, Phirin Sam whose telephone number is (703) 308 – 9294. The examiner can normally be reached on Monday – Friday for 8:30AM – 5:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Olms can be reached on (703) 305 – 4703. The fax number for this group is (703) 872 – 9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 305 – 4700.

A handwritten signature in black ink, appearing to read "Phirin Sam".

Phirin Sam
Patent Examiner
July 3, 2003